WHAT IS CLAIMED IS:

1. A microlens array comprising a substrate and microlenses of a substantially circular profile provided on said substrate and each arranged such that a major axis and a minor axis thereof, which pass through a center of said substantially circular profile and intersect at 90 degrees, are substantially equal in length to each other, and sectional forms at faces vertical to an axis parallel to said major axis or said minor axis are, respectively, made of the same curved shape at any position.

2. A microlens array comprising a substrate, and microlenses provided on said substrate and each having a profile of a substantially circular form and arranged such that a major axis and a minor axis thereof, which pass through a center of said substantially circular form and intersect at 90 degrees, are equal in length to each other, and sectional forms at faces vertical to an axis parallel to said minor axis or said major axis, respectively, have a size of radius at any position.

3. A microlens array comprising a substrate, and microlenses provided on said substrate and each having a profile of a substantially circular form and arranged such that a major axis and a minor axis thereof, which pass through a center of said substantially circular form and intersect at 90 degrees, are equal in length to each other, and sectional forms at faces vertical to an axis parallel to said minor axis or said major

axis are, respectively, made of a given aspheric shape.

4. A microlens array comprising a substrate, and microlenses provided on said substrate and each arranged such that in a major axis and a minor axis thereof intersecting at 90 degrees, sectional forms at faces vertical to said major axis or said minor axis, respectively, are, respectively, made of the same curved line or the same combination of a curved line and a straight line in the respective directions at any position.

5. A microlens array according to Claim 1, wherein a curved face constituting a surface of said microlenses at a horizontal face of a transfer master pattern forming said microlenses has a tangential angle of 23 degrees or below.

6. A method for making a microlens array transfer master pattern, which comprises forming a microlens configuration in a mold by controlling a cutting tool having the same nose profile as a sectional form of one of a minor axis and a major axis of a microlens so that the cutting tool draws a locus of a sectional form of the other axis.

7. A method for making a microlens array transfer master pattern, which comprises the steps of forming a nose profile of a diamond tip serving as a cutting tool in the same sectional form as one of a major axis or a minor axis of a microlens, and processing a mold by controlling a locus of the cutting tool so as to make the same sectional form of the other axis of the microlens, thereby forming a microlens configuration.

8. A method for making a microlens transfer master pattern wherein in the method for making a microlens of a substantially circular form according to Claim 7, when a diameter of said circular form is taken as D and a radius of said nose profile is taken as R, C/R is 0.73 or below.

9. A method for making a transfer master pattern, wherein in the method for making the microlens according to Claim 7, the step of forming the microlens configuration includes moving one of the cutting tool and a substrate in which a microlens is formed in a horizontal direction and moving a drive mechanism for fine movement in a vertical direction, thereby forming a microlens.

10. A method for making a transfer master pattern according to Claim 9, wherein said drive mechanism for fine movement is made of an piezoelectric element, and a voltage is applied to said piezoelectric element to move said cutting tool in vertical directions by a very small degree.

11. A transfer master pattern for a reflector plate member comprising a die, and microlenses, which are provided in said die, each of which has a profile of a substantially circular form and has a major axis and a minor axis that pass through the center of said circular form, intersect at 90 degrees and are equal in length to each other, and each of which has a sectional form at a face vertical to an axis parallel to said minor axis or said major axis constituted of the same size of

radius at any position thereof, said microlenses being formed on a plane at uneven pitches wherein a pitch between adjacent microlenses is within a range of 50 to 100% of a lens radius of said microlens.

12. A transfer master pattern for a reflector plate member comprising a die, and microlenses, which are provided in said die, and each of which has a major axis and a minor axis intersecting at 90 degrees and sectional forms at faces vertical to said major axis or said minor axis are, respectively, made of the same curved line or the same combination of a curved line and a straight line in the respective direction and at any position, said microlenses being formed on a plane at uneven pitches wherein a pitch between adjacent microlenses is within a range of 50 to 100% of a lens radius.

13. A method for making a transfer master pattern for a reflector plate member, which comprises the step of forming microlens configurations in a die by controlling a cutting tool, which has the same nose profile as a sectional form of one of a minor axis or a major axis, substantially equal in length to each other, of a microlens, so as to draw a locus of a sectional form of the other axis wherein said microlenses, respectively, have substantially circular profile and have a major axis and a minor axis, which pass through the center of the circle and intersect at 90 degrees, being equal in length to each other, sectional forms of faces vertical to an axis parallel to said

minor axis or said major axis have the same size of radius at any position, said microlenses are formed on a plane at uneven pitches, and a pitch between adjacent microlenses is within a range of 50 to 100% of a lens radius of said microlenses.

14. A method for making a transfer master pattern for a reflector plate member, which comprises the steps of forming a nose profile of a diamond chip of a cutting tool in the same form as a sectional form of one of a major axis and a minor axis of a microlens, and controlling a locus of said cutting tool in coincidence with a sectional form of the other axis to process a die thereby forming a microlens configuration in the die, wherein said microlenses, respectively, have a substantially circular profile and have a major axis and a minor axis, which pass through the center of the circle and intersect at 90 degrees, being equal in length to each other, sectional forms of faces vertical to an axis parallel to said minor axis or said major axis have the same radius size at any position, said microlenses are formed on a plane at uneven pitches, and a pitch between adjacent microlenses is within a range of 50 to 100% of a lens radius of said microlenses.

15. A method for making a transfer master pattern for a reflector plate member, which comprises the step of forming microlens configurations in a die by controlling a cutting tool, which has the same nose profile as a sectional form of one of a minor axis or a major axis, substantially equal in length to

each other, of a microlens, so as to draw a locus of a sectional form of the other axis wherein said microlenses, respectively, have a major axis and a minor axis intersecting at 90 degrees and are so arranged that sectional forms of faces vertical to an axis parallel to said minor axis or said major axis are, respectively, made of the same curved line or the same combination of a curved line and a straight line in the respective directions at any position, said microlenses are formed on a plane at uneven pitches, and a pitch between adjacent microlenses is within a range of 50 to 100% of a lens radius of said microlenses.

16. A method for making a transfer master pattern for a reflector plate member, which comprises the steps of forming a nose profile of a diamond chip of a cutting tool in the same form as a sectional form of one of a major axis and a minor axis of a microlens, and controlling a locus of said cutting tool in coincidence with a sectional form of the other axis to process a die thereby forming a microlens configuration in the die, wherein said microlenses, respectively, have a major axis and a minor axis intersecting at 90 degrees and are so arranged that sectional forms of faces vertical to an axis parallel to said minor axis or said major axis are, respectively, made of the same curved line or the same combination of a curved line and a straight line in the respective directions at any position, said microlenses are formed on a plane at uneven pitches, and

a pitch between adjacent microlenses is within a range of 50 to 100% of a width of said microlenses.

17. A method for making a concave and convex pattern, wherein said transfer master pattern made according to the method of making the transfer master pattern defined in Claim 14 is held against a substrate to be transferred, thereby forming a concave and convex pattern.

18. A method for making a concave and convex pattern, wherein said transfer master pattern made according to the method of making the transfer master pattern defined in Claim 16 is held against a substrate to be transferred, thereby forming a concave and convex pattern.

19. A method for making a concave and convex pattern, wherein in the method for making the concave and convex pattern defined in Claim 17, said substrate to be transferred is made of a substrate laminated with a plastic film or an underlying layer thereon.

20. A method for making a concave and convex pattern, wherein in the method for making the concave and convex pattern defined in Claim 18, said substrate to be transferred is made of a substrate laminated with a plastic film or an underlying layer thereon.

21. A concave and convex pattern, characterized by being made according to the method defined in Claim 17.

22. A concave and convex pattern, characterized by being

made according to the method defined in Claim 18.

23. A laminate for transfer comprising the concave and convex pattern defined in Claim 21 provided as a provisional support, a thin film laminated on a concave and convex pattern surface of said provisional support, and an application support bonded with a surface of said thin film layer opposite to the surface in contact with said provisional support.

24. A laminate for transfer comprising the concave and convex pattern defined in Claim 22 provided as a provisional support, a thin film laminated on a concave and convex pattern surface of said provisional support wherein a surface of said thin film layer opposite to the surface in contact with said provisional support serves as a bonding surface with an application substrate. .

25. A laminate for transfer according to Claim 23, wherein a protecting film is laminated on the bonding surface of said thin film layer.

26. A laminate for transfer according to Claim 24, wherein a protecting film is laminated on the bonding surface of said thin film layer.

27. A method for making a diffuse reflector plate, which comprises the steps of providing the laminate for transfer defined in Claim 25, holding said laminate for transfer, from which said protecting film has been separated, against an application substrate in such a way that said bonding surface

of said thin film layer is in contact with said application substrate.

28. A method for making a diffuse reflector plate, which comprises the steps of providing the laminate for transfer defined in Claim 26, holding said laminate for transfer, from which said protecting film has been separated, against an application substrate in such a way that said bonding surface of said thin film layer is in contact with said application substrate, separating said provisional support, and forming a reflective film on the concave and convex surface of said concave and convex pattern.

29. A method for making a diffuse reflector plate, characterized by comprising the steps of holding said concave and convex pattern defined in Claim 21 against the thin film layer formed on a protecting substrate so that the concave and convex surface is in contact with said thin film layer, separating said concave and convex pattern, and forming a reflective film on a surface on which the concave and convex surface of said thin film layer has been transferred.

30. A method for making a diffuse reflector plate, characterized by comprising the steps of holding said concave and convex pattern defined in Claim 22 against the thin film layer formed on a protecting substrate so that the concave and convex surface is in contact with said thin film layer, separating said concave and convex pattern, and forming a

reflective film on a surface on which the concave and convex surface of said thin film layer has been transferred.

31. A diffuse reflector plate comprising the concave and convex pattern made according to the method defined in Claim 17, and a reflective film laminated on the concave and convex surface of said concave and convex pattern.

32. A diffuse reflector plate comprising the concave and convex pattern made according to the method defined in Claim 18, and a reflective film laminated on the concave and convex surface of said concave and convex pattern.

33. A liquid crystal display device, characterized by comprising a diffuse reflector plate made according to the method defined in Claim 27.

34. A liquid crystal display device, characterized by comprising a diffuse reflector plate made according to the method defined in Claim 28.

35. A liquid crystal display device, characterized by comprising a diffuse reflector plate made according to the method defined in Claim 29.

36. A liquid crystal display device, characterized by comprising a diffuse reflector plate made according to the method defined in Claim 30.